

Application Serial No. 10/583,018
Reply to Non-Final Office Action of April 29, 2008

PATENT
Docket: CU-4878

REMARKS

In the Office Action dated April 29, 2008 Claims 1-35 are rejected and objections are made to the specification. By the present Amendment, applicant amends the claims and the specification. The amendments are considered to overcome each of the specific objections or rejections.

The specification is objected to as reciting a non-descriptive title and reciting an abstract in excess of the 150-word limit. The present amendments to the title and abstract are considered to overcome these objections.

Claims 31, 33, and 35 are objected to as being improper due to multiple dependencies. The cancellation of Claims 31, 33, and 35 renders moot the dependency rejection with respect to these claims

Claims 1-9, 15, and 29-30 are rejected under 35 U.S.C. § 102(b) as being anticipated by JP 2002-237382. Claims 1, 2, and 9-15 are canceled and all claims dependant on the canceled Claim 1 are now made dependant on previously amended Claim 3. The cancellation of Claims 1, 2, and 9-15 renders moot the anticipation rejection under § 102(b) with respect to these claims.

Regarding the rejection of Claims 3-8 and 29-30, independent Claim 3 and dependant Claims 4-8 and 29-30 are considered to overcome the anticipation rejection under § 102(b) based on the following feature of Claim 3: "wherein at least one of the electrodes is composed of a metal having a melting point of 70°C or higher to 160°C or lower." At least this feature is considered to be novel for reasons laid out in the following paragraph.

JP 2002-237382 does not disclose or suggest the above-described feature of Claim 3. The rejection states that the JP 2002-237382 reference teaches a metal that has a melting point of 70°C or higher to 160°C or lower among the low-melting point metals presented. The JP 2002-237382 reference, however, does not disclose or suggest the melting point or the range of melting points for metals. Contrary to the

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disclosure on page 7 of the present specification, all metals presented in Table 1 of the JP 2002-237382 reference have melting points outside of the range recited by the present invention. Specifically, line 11 of Table 1 is noted by the rejection as teaching a metal having the recited characteristics. The rejection states that Indium has a melting point of 156.6°C; however, this element cannot be evaluated outside of the alloy in which it is presented. Table 1, line 11 discloses an alloy of tin (Sn), silver (Ag), copper (Cu), and indium (In) whose elements have melting points of 231.9°C, 961.8°C, 1083.4°C and 156.6°C, respectively. At no point is the melting point of this alloy disclosed by the JP 2002-237382 reference to be within the range recited by the present invention. Nor does the cited alloy intrinsically disclose a metal having a melting point lower than 160°C. By inspection, one having ordinary skill in the art would know that the addition of 1.0% by weight of an element having a melting point of 156.6°C would not lower the melting point of the disclosed alloy below the 160°C maximum temperature recited by the present invention.

Further, the JP 2002-237382 reference discloses the use of metals such as Ga, K, Cs, and Rb, but each of these metals have a very low melting point – 29°C, 63°C, 28°C, and 38°C, respectively. Accordingly, unlike the organic functional element of the present invention, an organic LED element having a cathode formed utilizing such metals as disclosed in the JP 2002-237382 reference would not provide a highly reliable organic functional element. Such an element would result in damage to the organic material layer during formation of the electrode and an element that is susceptible to environmental temperature extremes such as those present inside of automobile in summer.

In light of the above, Claim 3 of the present invention is not anticipated by the JP 2002-237382 reference, which is completely silent regarding the novel feature of Claim 3 and which merely discloses an organic LED element using the above-mentioned low-melting point metals. Therefore, independent Claim 3 of the present invention is seen to be patentably distinct sufficient to satisfy 35 U.S.C. § 102(b). Additionally, since independent Claim 3 is seen to be patentably distinct, dependant Claims 4-8 and 29-30 also satisfy the requirements of 35 U.S.C. § 102(b).

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Claims 10 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 2002-237382 in view of U.S. Patent No. 5,120,498. The cancellation of Claims 10 and 12 renders moot the obviousness rejection under § 103(a) with respect to these claims.

Claims 11, 13, and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 2002-237382 in view of U.S. Patent No. 4,810,308. The cancellation of Claim 11, 13, and 14 renders moot the obviousness rejection under § 103(a) with respect to these claims.

Claims 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 2002-237382 in view of U.S. Patent No. 6,160,346. As discussed above, independent Claim 3 is seen to be patentably distinct over the JP 2002-237382 reference. Since Amended Claims 16 and 17 depend from independent Claim 3, Claims 16 and 17 are accordingly seen to be patentably distinct sufficient to satisfy the requirements of 35 U.S.C. § 103(a).

Claims 32 and 34 are rejected as under 35 U.S.C. § 103(a) as being unpatentable over JP 2002-237382 in view of U.S. Patent Appl. No. 2001/0011783. As discussed above, independent Claim 3 is seen to be patentably distinct over the JP 2002-237382 reference. Since Amended Claims 32 and 34 depend from independent Claim 3, Claims 32 and 34 are accordingly seen to be patentably distinct sufficient to satisfy the requirements of 35 U.S.C. § 103(a).

Finally, Claims 18-28, 31, 33, and 35 are objected to as being product by process claims and as such were not examined because they were not directed to the manner in which the device is to be made. The present amendment to the claims resolves this objection. Each of those claims have been revised as method claims.

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

SEP 23 2008

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Respectfully submitted,

September 23, 2008

Date



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